

**Claim Amendments**

1. (currently amended) Apparatus for reducing cracking at the body-shank junctions of a hardened steel die block, said apparatus including, in combination

an electric heat source in close proximity to the body-shank junction portion of the steel die block,

said electric heat source being composed of parallel runs of heating elements,

substantially all portions of adjacent parallel runs of heating elements being substantially equally distantly spaced from one another in a common plane,

said electric heat source being positioned to apply impinge heat from the electric heat source directly on to the surface of the body-shank junction portion of the steel die block, and in an amount such that the body-shank portion, only, of the steel die block is softened to a level at which subsequent cracking at a shank-body junction of the steel die block is substantially eliminated, and

~~means for confining the heat from the electric heat source to the body-shank junction portion of the die block.~~

structural heat blocking members surrounding the electric heat source at all locations except where the body-shank junction portion of the steel die block is located in unobstructed facing relationship to the heating elements of the heat source.

2. (currently amended) The apparatus of claim 1 further characterized in that

the electric heat source is an induction heating coil ~~means~~.

3. (currently amended) The apparatus of claim 2 further characterized in that the means for confining the induction heating currents generated by the induction heating coil ~~means~~ includes at least partial envelopment by non-magnetic material of those portions of the induction heating coil ~~means~~ which are not in operative relationship with the shank or body portion of the die block.

4. (currently amended) The apparatus of claim 3 further characterized in that the means for confining the induction heating currents are substances selected from the group consisting of ~~comprising~~ stainless steel, granite and ceramic materials which are capable of withstanding, without substantial distortion, the temperatures generated during treatment by the induction heating coil, ~~means~~.

5. (currently amended) The apparatus of claim 4 further characterized in that ~~the electric heat source is an induction heating coil means,~~  
the induction heating coil ~~means being~~ is in abutting contact with the surface of the shank-body junction ~~surface of a~~ the steel die block.

6. (cancelled)

7. (currently amended) The apparatus of claim 1 further characterized in that the electric ~~current~~ heat source consists of an infrared heater ~~heating means~~ comprised of tungsten halogen lamps.

8. (currently amended) The apparatus of claim 7 further characterized in that the tungsten halogen lamps are perpendicularly spaced from the surface of the body-shank junction portion of the die block.

9. (currently amended) The apparatus of claim 7 further characterized in that the ~~infrared heating means are short wave~~ tungsten halogen lamps are short wave lamps.

10. (currently amended) Apparatus for softening a selected portion of a steel object which includes, in combination

~~a source of infrared heating, an infrared heater,~~

said infrared heater being composed of parallel runs of heating elements,

substantially all portions of adjacent parallel runs of heating elements being

substantially equally distantly spaced from one another,

said infrared heater being positioned to impinge electrical energy directly on the surface of said selected portion means for ~~subjecting said selected portion to electrical energy derived from said source of infrared heating~~ heater,

structural heat blocking members surrounding the infrared heater at all locations except where the selected portion of the steel object is located in unobstructed facing relationship to the infrared heater.

~~means for maintaining said selected portion and said source of heating in fixed relationship to one another during subjection of said selected portion to said source of heating, and~~

infrared heater control means for controlling the depth in the steel object to which the infrared heating is applied.

whereby the selected portion is softened to the desired extent but the remainder of the steel object is not so softened.